

to the position and distance of the Earth from the Sun. The mean motions of *Jupiter's* Satellites is also swifter in his descent from his Aphelium to his Perihelium, than in his ascent in the other half of his Orb : But this inequality has no respect to the position of the Earth, and in the three interior Satellites is insensible, as I find by computation from the Theory of their gravity.

P R O P. XII.

Every ray of Light in its passage through any refracting surface is put into a certain transient constitution or state, which in the progress of the ray returns at equal intervals, and disposes the ray at every return to be easily transmitted through the next refracting surface, and between the returns to be easily reflected by it.

This is manifest by the 5th, 9th, 12th and 15th Observations. For by those Observations it appears, that one and the same sort of rays at equal Angles of incidence on any thin transparent plate, is alternately reflected and transmitted for many successions accordingly, as the thickness of the plate increases in arithmetical progression of the numbers 0, 1, 2, 3, 4, 5, 6, 7, 8, &c. so that if the first reflexion (that which makes the first or innermost of the Rings of Colours there described) be made at the thickness 1, the rays shall be transmitted at the thicknesses 0, 2, 4, 6, 8, 10, 12, &c. and thereby make the central Spot and Rings of Light, which appear by transmission, and be reflected at the thicknesses 1, 3, 5, 7, 9, 11, &c. and thereby make the Rings which appear

appear by reflexion, as the ray continues for above the Observation thousands, being plate to the other be a quarter of a nation seems to surface to all dif

This alternation both the surface depends on their either surface of ted, the Colours and refraction of them both.

It is therefore if it were perfective at the second cond.

It is also infinitely propagated from wise at the second this action or distance and returns by progress it inclines surface to be retransmitted by innumerable vicissitudes to reflexion at transmission at its transmission